Application of the Doppler effect..

32227
S/139/61/000/004/022/023
E032/E314

and b) the case where the discharge and the emission by the plasma occur in a narrow cylindrical region which contracts or expands under the action of electromagnetic forces. It is shown that by recording the emission at various angles to the axis of the chamber one can investigate, with the aid of the Doppler effect, the directed motion of plasma layers. On the other hand, by measuring the line profiles due to this directed motion one can determine the ion velocity distribution. The simultaneous measurement of the spectral-line profiles of neutral atoms and ions provides interesting information about the effect of the moving ions on the neutral atoms. The optical method appears to be the only possible method for studying the motion of the two types of particles separately. Determination of the temperature from the Doppler profile may lead to incorrect results if the directed motion is not taken into account. The success of these applications of the Doppler effect to the study of directed motion in plasma will depend on the

Card 2/3

32227

Application of the Doppler effect ... S/139/61/000/004/022/023
E052/E314

suitable choice of spectral lines for which other types of
broadening can either be included or allowed for.
There are 4 figures and 2 Soviet-bloc references.

ASSOCIATION: IAA imeni Dzerzhinskogo   (IAA imeni
Dzerzhinskiy)
Moskovskiy energeticheskiy institut
(Moscow Power-engineering Institute)

SUBMITTED: January 4, 1960 (initially)
February 6, 1961 (after revision)

Card 3/3

X

ACCESSION NR: AP4036569

S/0139/64/000/002/0136/0141

AUTHORS: Zagoryanskaya, Ye. V.; Kireyev, P. S.

TITLE: The role of interference for electron transmission through a double potential barrier

SOURCE: IVUZ. Fizika, no. 2, 1964, 136-141

TOPIC TAGS: interference, electron transmission, double potential barrier, Fabry Perot etalon, transmission coefficient, reflection coefficient

ABSTRACT: The transmission coefficient for a double potential barrier is computed and compared with that obtained for the analogous problem in optics, the Fabry-Perot etalon. The Fabry-Perot etalon consists of two semitransparent mirrors, each having coefficients of reflection r and transmission τ, which are separated by a distance t. For zero incidence angle of light (wavelength λ) on the system the transmission coefficient is

$$T = \frac{I_T}{I_0} = \frac{\tau^2}{1 + r^2 - 2r\cos[2kt + 2\delta]}$$

Card 1/5

ACCESSION NR: AP4036569

where $k = 2\pi/\lambda$ and δ is the phase shift of the light reflected from one of the mirrors. It is noted that the maximum value of the transmission coefficient is

$$T_{max} = \frac{\tau^2}{(1-r)^2} = \frac{(1-r)^2}{(1-r)^2} \equiv 1.$$

The double potential barrier is shown in Fig. 1 on the Enclosure, where the particle energy $E < U_o$. The transmission coefficient for the system is

$$T = \frac{\tau^2}{1 + r^2 - 2r^2\cos 2k\ell + r(1-r)(e^{2\kappa a} + e^{-2\kappa a})\cos 2k\ell} +$$
$$+ \frac{\tau^2}{8\xi(1-\xi^2)r(1-r)(e^{2\kappa a} - e^{-2\kappa a})\cdot\sin 2k\ell},$$

which is expressed in terms of the reflection and transmission coefficients of the single potential barrier,

$$r = \frac{1}{1 + \frac{16\xi^2}{(1+\xi^2)^2(e^{\kappa a} - e^{-\kappa a})^2}}$$

Card 2/5

ACCESSION NR: AP4036569

$$T = \cfrac{1}{1 + \cfrac{(1 + \xi^2)^2 (e^{xa} - e^{-xa})^2}{16\,\xi^2}}$$

Here

$$k^2 = \frac{2mE}{h^2} ,$$

$$x^2 = \frac{2m(U_0 - E)}{h^2}$$

and

$$\xi = \frac{k}{x} .$$

The special case of infinitely high, thin barriers is considered where the quantity xa remains fixed. Then $r \to 1$ and

$$T = \frac{r^2}{1 + r^2 - 2r^2 \cos 2ka}$$

Card 3/5

ACCESSION NR: AP4036569

which is only superficially similar to the expression for the optical case. The essential difference is made even more apparent by noting

$$T_{max} = \frac{(1-r)^2}{(1-r^3)} = \frac{1-r}{1+r} = \frac{\tau}{1+r} \approx \frac{\tau}{2} .$$

Orig. art. has: 32 equations and 2 diagrams.

ASSOCIATION: Voyenno-inzhenernaya artilleriyskaya akademiya (Military Engineering Artillery Academy); Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 10Jul62   DATE ACQ: 05Jun64   ENCL: 01

SUB CODE: GP   NO REF SOV: 003   OTHER: 000

Card 4/5
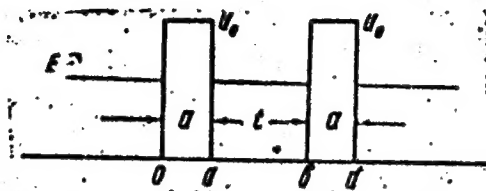
ACCESSION NR: AP4036569

Fig. 1. Double potential barrier.

Card 5/5

ZAGORYANSKAYA, Ye. V.; KIREYEV, P.S.

Potential of a linear alternating charge.   Izv. vys. ucheb.
zav.; fiz. no. 3:12-16 '64.   (MIRA 17:9)

1. Moskovskiy institut stali i splavov Voyenno-inzhenernaya
artilleriyskaya akademiya.

ZAGORYANSKAYA, Ye. V.

PA 46/49196

USSR/Physics
Spectra, Atomic
Electrodes

May 49

"Measuring the Relative Probabilities of Transition of Some Cr II lines and Determining the Temperature of a Condensed Spark Between Steel Electrodes," Ye. V. Zagoryanskaya, Moscow State U, 4 pp

"Zhur Eksper i Teoret Fiz" Vol XIX, No 5

Measured relative probabilities of transition of certain chrome Cr II lines (2,876 - 2,860 ang-strom). Measurements were made in the arc

46/49196

USSR/Physics (Contd)

May 49

spectrum between carbon electrodes by measuring relative intensities of Cr II lines. Measured temperature of condenser arc between steel electrodes according to Cr II lines. Submitted 6 Nov 48.

46/49196

ZAGORYANSKAYA, Ye. V.

Investigation of spectrum excitation conditions in the controlled spark source. E. V. Zagoryanskaya. Zavod. skaya Lab. 15, 54-9(1949). —Abs. and relative intensities, electrode temps., analytical gap voltages, current, and spark temps. were observed as a function of time for several arc and spark lines of Fe, Cr, V, Si, Mg, and Al with an uncontrolled spark source, and one in which triggering was provided by an auxiliary high-frequency fixed-gap spark circuit inductively coupled into the main circuit. With steel electrodes, the triggered source gave more stable intensity ratios and gap voltages than did the uncontrolled source; with Duralumin electrodes, there was little difference between sources. Sparking-off effects are not primarily due to heating up of the electrode, and are not eliminated by keeping gap voltage and amperage const. The temp. of the spark itself is const. throughout the exposure.   Cyrus Feldman

ZAGORYANSKAYA, YE V

SA

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i

523.331 : 516.33

4628.   Measurement of the relative transition proba-
bilities of some lines of Cr II and determination of the
temperature of a condensed spark between steel
electrodes. ZAGORYANSKAYA, E. V. J. Exp. Theor.
Phys., USSR, 19 (No. 5) 441-50 (May, 1949) In
Russian.—The measurements were carried through
in the arc spectrum between C electrodes by measuring
the relative intensities of the Cr II lines; the temperature
of the condensed arc between steel electrodes then
also being determined from the Cr II lines.   B. V. K.

METALLURGICAL LITERATURE CLASSIFICATION

KIREYEV, Petr Semenovich; ZAGORYANSKAYA, Yelizaveta Vasil'yevra;
STRIGANOV, A.R., red.; PERKOVSKAYA, T.Ye., red. izd-va;
PAVLOVA, V.A., tekhn. red.

[Molecular spectrum analysis] Molekuliarnyi spektral'nyi analiz.
Moskva, Gos. izd-vo "Vysshaia shkola," 1961. 142 p. (MIRA 15:1)
(Spectrum, Molecular)

ZAGORYANSKAYA, Ye.V.; KIREYEV, P.S.

Determining the optical constants of thin films from the interference figure. Izv.vys.ucheb.zav.; fiz. no.4:124-133 '61.
(MIRA 14:10)

1. Moskovskiy energeticheskiy institut.
(Interferometry)

ZAGORYANSKAYA, Ye.V.; KIREYEV, P.S.

Use of the Doppler effect in studying processes occurring in a
gas discharge plasma. Izv.vys.ucheb.zav.; fiz. no.4:163-167
'61.   (MIRA 14:10)

1. Moskovskiy energeticheskiy institut.
        (Plasma (Ionized gases))   (Doppler effect)

ZAGORYANSKAYA-FEL'DMAN, V.A.

Treatment of laryngeal cancer by ligature of the afferent vessels with
subsequent X-ray therapy. Vest. otorinolar. 13 no.2:46-50 Mar-Apr 51.
(CLML 20:8)

1. Doctor Medical Sciences. 2. Of the Clinic for Diseases of the Ear,
Throat, and Nose (Director--Honored Worker in Science A.I. Fel'dman),
Moscow Oblast Scientific-Research Clinical Institute--Central Institute
for the Advanced Training of Physicians (Director--V.P. Lebedeva).

ZAGORYANSKAYA, V.A., doktor med.nauk

Laryngitis. Zdorov'e 5 no.8:30-31 Ag '59. (MIRA 13:8)
(LARYNX—DISEASES)

ZAGORYANSKIY, A.; KAPLINA, K.

    Fiftieth anniversary of "Pravda." Mest.prom.i khud.promys.
    3 no.5:8-9 My '62.
                                  (MIRA 15:6)

    1. Redaktor gazety "Za obraztsovoye obsluzhivaniye" (for
    Kaplina).
                    (Newspapers)

BEREZIN, N.T.; ZAGORYANSKIY, A.D.

Fishes. Zdorov'e 5 no.11:22-23 N '59.   (MIRA 13:3)
                    (Fish as food)

ZAGORYANSKIY, Ye., master SSSR po shakhmatam

Electronic chess player. IUn.tekh. 3 no.4:71-73 Ap '59.
(MIRA 12:4)

(Chess)
(Electronic calculating machines)

BUSHE, N.A., kand. tekhn. nauk NARSKIKH, I.I., kand. tekhn. nauk;
    BABAYEV, N.K., aspirant; ZAGORYANSKIY, Yu.A., inzh.

Testing of aluminum alloy bearings for diesel locomotive engines.
Vest. TSNII MPS 22 no.7:39-44 '63.   (MIRA 16:12)

1. Tashkentskiy institut inzhenerov zheleznodorozhnogo transporta
(for Babayev).

VOLODIN, A.I., kand.tekhn.nauk; NARSKIKH, I.I., kand.tekhn.nauk; ZAGORYANSKIY, Yu.A., inzh.

Methods for measuring the wear of the crankshafts of diesel locomotive engines. Trudy TSNII MPS no.262:73-84 '63.

(MIRA 16:10)

ZAGOR'YE, A.M.; ZAKH, R.G.

Burning of natural lignin with increased initial moisture. Gidroliz. i lesokhim. prom. 18 no.6:6-10 '65.   (MIRA 18:9)

L 9701-66

ACC NR: AP5026567   SOURCE CODE: UR/0286/65/000/019/0131/0131

AUTHOR: Zagor'ye, B. A.

ORG: none

TITLE: A device for hoisting small craft to the deck of a ship-base and lowering them to the water. Class 65, No. 175407

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 131

TOPIC TAGS: boat, elevating gear, safety device, water traffic

ABSTRACT: This Author Certificate presents a device for hoisting small craft onto the deck of a ship-base and for lowering them into the water. The device includes metal supporting structures with cantilever beams hinged to joints, and a block-and-tackle system with a cable passing through the blocks of the tackle. The device is intended to increase the safety of lifting and lowering craft under rough sea conditions. The block-and-tackle system is made with stays of a fixed length, fastened to upper points of the inclined masts of the metal structures. These structures are displaced toward the diametric plane of the ship-base in reference to the diametric plane of the small craft. The stays take on part of the weight of the small craft during its setting on the deck of the ship-base and while lowering it from the deck. This is accomplished with the simultaneous cleansing or recovering of the cables (passing through the blocks of the tackle) by winches which automatically recover the slack. To mechanize the

Card 1/2

UDC: 629.125.65

L 9701-66

ACC NR: AP5026567

positioning of the small craft to its assigned location, a boat dolly with a keel block carriage (which moves in a vertical direction) is mounted on the deck of the ship-base. The small craft are moved along the deck of the ship on this boat dolly. This movement is directed by a specially designed cable and winch, the latter mounted on the deck of the ship.
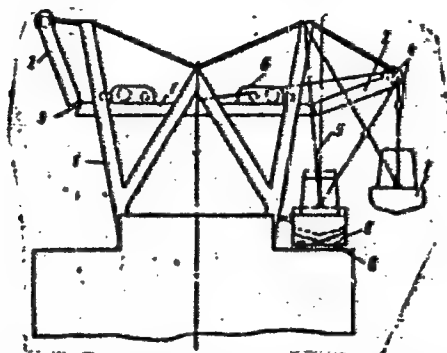

Fig. 1. 1 - Metal supporting structures; 2 - cantilever beams; 3 - hinges; 4 - block-and-tackle system; 5 - stays; 6 - winch of mechanism for the automatic recovery of the cable slack; 7 - small craft; 8 - boat dolly; 9 - keel block carriage.

Orig. art. has: 1 figure.
SUB CODE: 13/ SUBM DATE: 17Jun65
Card 2/2

RABOKH, Ya. [Raboch, J.], ZAGORZH, Z. [Zahor,Z], FAYKS, Ch. [FEIX, C], (Praga)

Testicular biopsy in endocrine disorders [with summary in English].
Probl.endok., 1 gorm. 4 no.3:78-87 My-Je '58   (MIRA 11:8)

1. Iz Seksologicheskogo instituta (dir. - prof. Y.Giniye), II-go
Patologoanatomicheskogo instituta (dir. - prof. V.Yedlichka) i 2-y
terapevticheskoy kliniki (zav. - prof. F. Gerles) Karlova universiteta.
        (TESTICLE, pathology,
              biopsy in endocrine dis. (Rus))
        (ENDOCRINE DISEASES, pathology,
              testicular biopsy (Rus))

ZAGOSKINA, M.A.

Complications with reference to the nervous system following ino-
culations for rabies. Sbor. trud. Kursk. gos. med. inst. no.13:
226-230 '58.   (MIRA 14:3)

1. Iz kliniki nervnykh bolezney (zav. - prof. N.I.Golik) Kurskogo
gosudarstvennogo meditsinskogo instituta i antirabicheskogo otdeleniya
(zav. - I.I.Postolenko) Kurskoy oblsanepidstantsii.
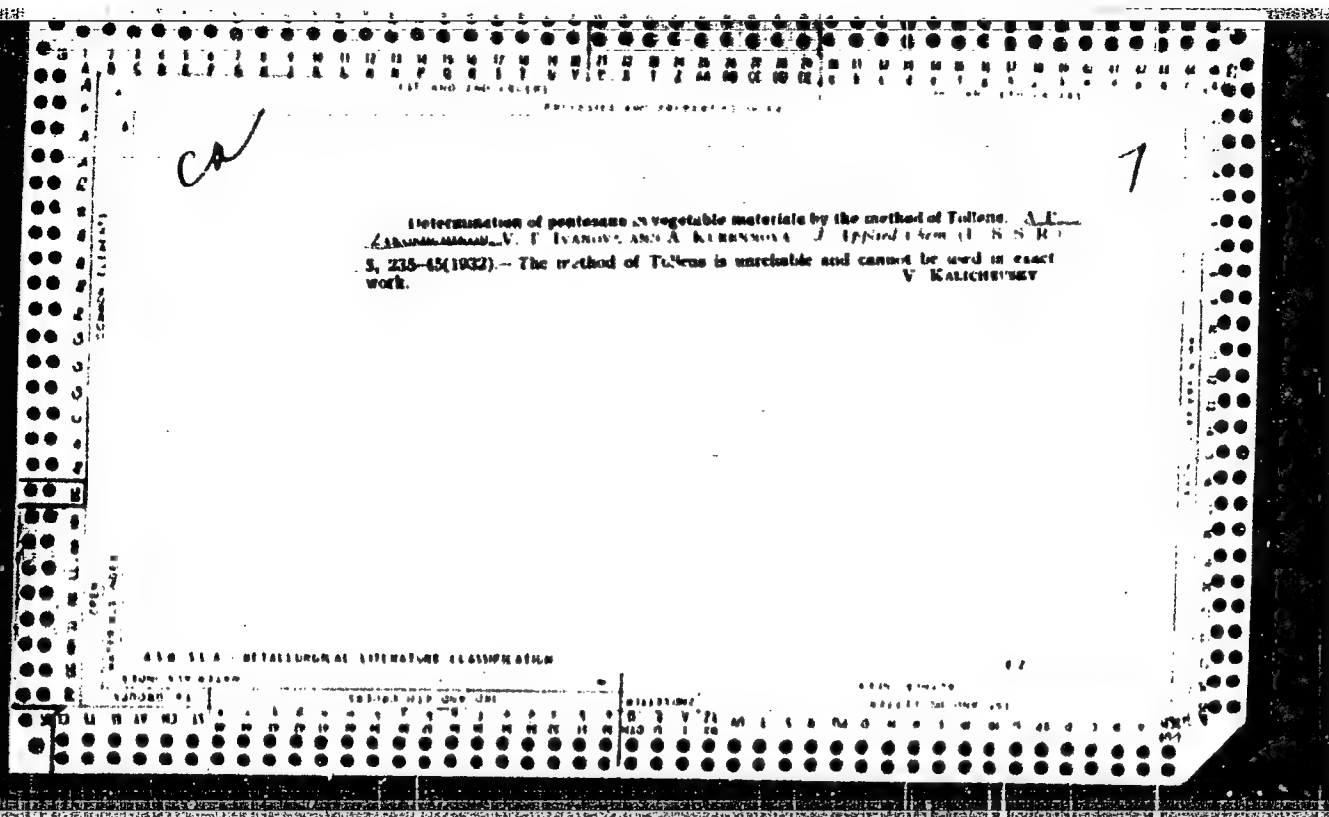   (NERVOUS SYSTEM—DISEASES)   (RABIES)

PROCESSES AND PROPERTIES INDEX

The utilization of the by-products of the cotton industry in Middle Asia. A. P. Zakirovnikov, V. T. Ivanova, G. A. Kurdzhenitski and A. M. Kitzenia *Khlopkovaya Promishlennost* Nos. 6-7, 97–112(1931).—The authors discuss the possibilities of utilizing the various by-products in the cotton industry, such as the bolls, stems, boll residue, leaves and lint, for cattle food, cellulose manuf., extn. of tannins, pentosans, xylose, prepn. of lignin and other products. Chem. analyses of the various parts of the cotton plant and the by-products are given.

J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

11D

A microscopic investigation of cotton fibers at various stages of maturity. A. P. Zakoshchikov, G. A. Krotkovskoval and M. G. Rettikov. Trudet Sredneaziatskogo Nauch. Issledovatel Inst. Khlopkovodstva, Khlopkovol Prom. Irrigatsii (Trans. Middle Asiatic Sci. Inst. Cotton Culture, Ind. Irrigation) Byull. No. 60, 15 4X(1931).—Cotton fiber at 40 days of age has the same structure as fiber from mature plants; it responds to mercerizing as mature cotton and has the same swelling coeff. in Schweitzer reagent and in 80% H₂SO₄. Thus cotton fiber has the same industrial value 35-40 days before the bolls open as after maturity. Only 15-16 days after blooming, cellulose appears in cotton. As the cellulose appears and increases in quantity the proteins decrease. The cuticle differs in compn. from the cellulose of the fiber, but upon hydrolysis with ZnCl, the products are similar, giving a blue reaction with I. No tannins nor starch were detected in the fibers. A series of illustrations is given.   J. S. Joffe

ASM-SLA   METALLURGICAL LITERATURE CLASSIFICATION

Determination of pentosans in vegetable materials by the method of Tollens. A. I. ... V. P. Ivanov and A. Kurennova ... (J. Applied Chem. U. S. S. R.) S, 235-45(1932). — The method of Tollens is unreliable and cannot be used in exact work.   V. Kalichevsky

Composition of cotton from various regions.
B. I. Arbuzov, A. P. Zimonsconev, B. I. Lower,

and B. L. Flaxina (Cotton Ind. Trust, U.S.S.R., Coll.
Papers, 1931, No. 1, 1—16).—Oil content and acid.
mp., and I rule. fluctuate slightly with the region.
Ch. Abs.

A summary of investigations on the chemical composition of cotton fiber at various stages of maturity. A. P. Zaknaknikov, N. I. Leonov and R. L. Rankum. Tr. Khlopkochist... Prom. (Cotton Ind. Trust), Collection of papers No. 1, 3-11(1933).--Analyses are presented on the compos. of cotton fiber and seed in bolls 20, 35, 45, 55, 70 and 80 days after blooming. The H₂O and oil contents of the seeds, the percentage of cellulose, total cellulose and percentage of N in the fiber are recorded. Unripe cotton from bolls which had no time to mature is better than cotton harvested from bolls with a 25-day or similar period of growth early in the season.   I. S. Joffe

METALLURGICAL LITERATURE CLASSIFICATION

The chemical composition of cotton from various regions. B. I. Ardashev, A. P. Zakoshchikov, B. I. Lavrov and K. L. Maskina. Trest Khlopkoobrabotaniel Prom. (Cotton Ind. Trust). Collection of papers No. 1, 12-16(1931).-- Cotton from 3 different points in Central Asia was analyzed for moisture, ash, cellulose, alky. of ash, total N, P and ether and H₂O exts. The oil content, the acid no., the sapon. no. and I no. fluctuate slightly with the region.

J. S. Joffe

The chemical composition of cotton hybrids. B. I. Ardashev, A. P. Zakoshchikov, B. I. Leonov and R. L. Raskina. Trest Khlopkochistitelnoi Prom. (Cotton Ind. Trust), *Collection of papers* No. 1, 16-19(1933). —The oil content was higher in the hybrids from upland (American) and Egyptian cotton; the ash content was also lower in the fiber, an indication of an improvement in the quality of the fiber.   I. S. Ioffe

BC

Production of furfuraldehyde from cottonseed
hulls. A. P. Zarbamourov, V. T. Ivanova, and A. M.
Kuzxinova (Cotton Ind. Trust, U.S.S.R., Coll. Papers,
1933, No. 1, 87—103).—The presence of tannine lowers
the yield of furfuraldehyde; ordinary hulls afford 15%
and delinted hulls + 20%. The yield is increased by
washing the seed with H_2O or removal of lignin by
chlorination.   Cn. Aas.

BC

16-II-10

Tannins in cottonseed hulls. A. P. Zaxozhnyi, V. T. Ivanov, G. A. Kornennokova, and A. M. Kuznetsova (Cotton Ind. Trust, U.S.S.R., Coll. Papers, 1938, No. 1, 102—118).—Ripe hulls contain 1% and hulls from young plants 18% of tannins. — Cn. Abs.

METALLURGICAL LITERATURE CLASSIFICATION

BC

PROCESSES AND PROPERTIES INDEX

B-I-5

Homogeneity of plant celluloses and their products. I. Cross-section elements and methods of their separation. II. Content of cross-structure elements in plant celluloses. A. Xxxxxxxxxx and D. Txxxxxxx (Iskusst. Volok., 1936, 6, 1—3) 1936, 6, 176—181).—I. The presence of cross-section elements in the cellulose material of untreated flax and ramie, mercerised cotton, pulps, nitrocellulose, etc. was shown by treating with 54—55% H_2SO_4. The solutions, diluted with ice-H_2O, filtered, and centrifuged, separated the chemically unchanged cross elements.

II. A method of determining these cross-section elements is based on treatment with H_2SO_4. Vals. were 0·1—0·5% in raw and 0·07—0·14% in refined cotton, 1·3% in unbleached and 0·07—0·09% in bleached spruce pulp.   Chem. Abs. (e)

A.S.M. METALLURGICAL LITERATURE CLASSIFICATION

Use of copper-ammonium solutions for the determination of impurities in (cotton) linters. A. P. Zabalu-khiny. *Iskusstvennoe Volokno (Artificial Fiber)* 3, No. 1, 30-0 (1934).—Expose 1.5-3 g. of crude or refined linters to the fumes of HCl for about 1 min. and then to NH₃, wash, dry and dissolve in Schweitzer's reagent, filter, wash the insol. residue, dry and weigh.   Chas. Blank

430-11A. METALLURGICAL LITERATURE CLASSIFICATION

Determination of the ripeness of linters fiber and calculation of cellulose yields by cooking. A. Zakoshchikov. *Iskusstvennoe Voloknoe (Artificial Fiber)* 5, No. 2, 37-41 (1934).—One g. of linters, wet with alc. and pressed out, is treated 5 min. at room temp. with 50 cc. 18% NaOH, filtered through a sieve, washed free from NaOH, boiled 10 min. with 100 cc. of 1% Congo red, filtered through a sieve, washed with H₂O, pressed out and analyzed under a microscope at 100-50 magnification. Ripe fiber gives bright-red cylindrical forms; semiripe, bright-red twists; unripe, faint rose twists; dead fiber, colorless flat ribbons. The cellulose yields are detd. by cooking linters with 1.5% NaOH at 140° for 5 hrs. A method of calcg. the cellulose yields is proposed. C. B.

New method of production of celluloses of different viscosities. Activated bleaching. A. Zakoshchikov, D. Tumarkin and Tz. Medinikova. Iskusstvennoe Volokno (Artificial Fiber) 5, No. 4, 23-8(1934); cf. Kaufmann, C. A. 19, 561; 23, 2293; 24, 6583; 27, 421; Melliand Textilber. 14, 138-6(1933).—A study was made of regulated reduction of viscosity of linters cellulose by bleaching with the aid of NH₃ as an activator of the decompn. of Ca(ClO)₂. Optimum activation and viscosity reduction were obtained by introducing alkali-steeped linters into a bleaching mixt. contg. active Cl₂ and NH₃ in proportion of 10:1. By bleaching 1 hr. at 13-15° the viscosity was reduced with 0.2% active Cl₂ without NH₃ to 178, and with NH₃ (Cl₂:NH₃ = 10:1) to 43, with 0.2% Cl₂, resp., to 149 and 12.7 and with 0.4% Cl₂ to 101 and 9.5. The degree of viscosity can also be regulated by working with a const. concn. of active Cl₂ and varied proportions of NH₃. Thus by bleaching steeped linters of viscosity 700 for 1 hr. at 13° with 0.2% of active Cl₂ the viscosity was reduced to 160 without NH₃, and with Cl₂-NH₃ in proportions of 30:1, 20:1, 10:1 and 2:1 to, resp., 90, 33, 17 and 300. Thus with the increasing proportion of NH₃, the activation of decompn. of hypochlorite increases and then at the ratio 2:1 is checked with the resulting cessation of bleaching and a viscosity of the material considerably higher than is obtained by bleaching without the activator. The activation is closely connected even the decompn. of NH₄Cl, which is consumed in the process of decompn. of hypochlorite. Steeped linters with viscosities of 3000, 2000, 1000, 700 and 51, when bleached under equal conditions with the aid of NH₃ produced celluloses of equal viscosities (7.9-11.9). The industrial use of the process is rendered difficult by the high velocity of decompn. of Ca(ClO)₂ (and bleaching) on addn. of NH₃ to the bleaching liquor. Thus by introducing linters immediately, 5, 15 and 30 min. after mixing, the resulting viscosities of the bleached cellulose were, resp., 23, 30, 50 and 67. The difficulty was overcome by mixing steeped linters with dil. aq. NH₃ (0.05-0.2%), pressing the material out and introducing it into the bleaching liquor. By this method the bleaching proceeds uniformly throughout the material, giving a cellulose of consistently even viscosity (8-10) and allowing a wider limit of the proportion of Cl₂ to NH₃ (5:1-10:1) for optimum results. While the viscosity of cellulose is lowered with the increased consumption of Cl₂, it is little affected by variations in temp. (up to 35°) of the NH₃-activated bleaching. While the NH₃ activation is possible only in alk. medium, the degree of alky. has so effect on lowering of viscosity. From the fact that bleaching progresses satisfactorily in 0.25% NaOH and ceases in 0.6-1% NaOH, while the viscosity is reduced to an equal degree (12-13-17), it follows that the reduction of viscosity on bleaching of cellulose and the bleaching are 2 different processes proceeding independently of each other.   Chas. Blanc

B·II·S

ca

23

New method for evaluating linter by the ripeness of the fiber and by calculating the cellulose yields on boiling.

A. P. Zakoshchikov. J. Applied Chem. (U. S. S. R.) 7, 1197-1205(1934).—The ripeness of the linter fiber is detd. by mercerizing with a soln. of NaOH, washing with water and dyeing with Congo red. All the fibers are easily distinguished in the mercerized fibers and can be subdivided into 4 groups by their color after acidification. The ripeness is expressed by the percentage of fibers represented by each group ($A\%$, $B\%$, $C\%$, $D\%$). The cellulose yield obtained after boiling the linter is calcd. from $Aa + Bb + Cc + Dd = x$, where $a = 0.97$, $b = 0.65$, $c = 0.33$ and $d = 0.20$, the latter factors indicating the degree of participation of the fibers in the formation of cellulose in boiling, i. e., their content in cellulose. A correction for contamination (Z) of the linter is obtained from $x(100 - Z)/100$.

A. A. Borhtinak

A.S.G.-I.L.A   METALLURGICAL LITERATURE CLASSIFICATION

23

Rational expression of the results of determining the viscosity of cuprammonium solutions of cellulose. A. Zakoshchikov. *Org. Chem. Ind.* (U. S. S. R.) 3, 31-9 (1936).—A discussion, with math. treatment, of the method of Tumarkin (C. A. 28, 4785). Chas. Riane

METALLURGICAL LITERATURE CLASSIFICATION

New method for estimating the purity of cellulose preparations. Determination of the transparency and whiteness of cellulose solutions in sulfuric acid with the aid of the [selenium] photoelectric cell. A. I. Zaboshchikov and D. P. Tumarkin. Org. Chem. Ind. (U.S.S.R.) 2, 404-12 (1936); cf. C. A. 29, 7637.) — As previously shown, cellular materials contain weighable insol. "cross-structure elements" (I) that resist the destructive action of mech. and chem. forces employed in the processes of refining and subsequent conversion into esters. The presence of the suspended I in the solns. of cellulose esters is one of the causes of the inadequate transparency (turbidity) of the finished products (celluloid, cinematographic films, etc.). A method proposed for detg. the turbidity and coloration of the solns. of cellulose and its derivs. with the aid of the Se photoelec. cell gives indirectly the "index of whiteness" of the product. The advantages claimed for this method of detg. whiteness are its objectivity of results and the freedom from the difficulties and shortcomings of the direct photometric deta. by various methods, which with cellulose (linters) samples are accentuated by the uneven surface of the fibrous mass. The app. (illustrated) consists of an opaque box (50 × 30 × 30 cm.), in which the light from an elec. incandescent lamp, after passing through a converging lens, is made parallel by means of 2 diaphragms and then is directed through the soln. to be tested and from this onto the Se photocell (2.5 sq. cm. surface) connected with a galvanometer of a sensitivity of 10^{-4} amp. The assembly is provided with a 30-v. storage battery, Hg circuit breaker and rheostat.

immediately before the detns., the circuit is adjusted to a const. light intensity falling on the photocell. By using the same container and H_2SO_4 vol., the light absorbed by them can be disregarded. Since the light transmitted through a colored turbid soln. is weakened both by dispersion and absorption, the turbidity (transparency) is detd. by examg. the soln. before and after the sepn. of I with Et_2O. Since the soln. (photofilter) is not decolorized by Et_2O, the procedure gives also the value of the color intensity of the soln. Five successive detns. of a specimen are made by adding 100 cc. H_2O to a soln. of 2 g. linters in 10 cc. of 63% H_2SO_4 and then filtering through a glass filter No. 1, lined at the bottom with a 0.2-0.3-cm. layer of bleached linters. The filtrate is examd. in the app. and the photoelec. current I_t, corresponding to the light transmitted through the soln., is read off the galvanometer. A part (100-200 cc.) of the united filtrates is shaken with 10-15 cc. Et_2O and the clear, colored aq. layer is examd. as above, giving the photoelec. current I_t. To obtain the index of whiteness F, the photoelec. current I_0 of distd. H_2O is required. The transparency P of the soln. is calcd. by the formula: $(I_t × 100)/I_0$%; evidently the turbidity proper of the soln. is $(100 - P)$%. Since the color intensity of a cellulosic material in H_2SO_4 soln. is directly related to its degree of whiteness, it follows that $F = (I_t × 100)/I_0$%. For cellulosic materials of an ideal whiteness, giving colorless H_2SO_4 solns., $F = 100$%. No direct relation between P and F exists, in some very white linters can give H_2SO_4 solns. of poor transparency, and conversely. The method is suitable only for estns.

ed whiteness of refined cellulose products; the accuracy is better than 1%. The method was used in exptl. study of the factors detg. the transparency and whiteness of linters and that of nitrocellulose (II) and cellulose acetate (III). The results show that the transparency (turbidity) of II and III is directly related to that of the refined linters used in the production. Transparency tests and chem. analysis reveal that the transparency of Soviet refined linters is directly related to the contents of fats and waxes and inversely to the wetability of linters. A direct relation exists between the degree and variability of transparency of finished linters and that of the age of crude linters, which varies from 38% for green to 68% for matured linters. The transparency is fundamentally detd. by the condition of alk. steeping and is independent of the de-

gree and method of bleaching. The transparency of bleached sulfite pulp is nearly equal to that of high-grade linters; it is suitable for conversion into II. The index of whiteness of different samples varies considerably less than the transparency, but is for linters of different mills less const. than the transparency. The transparency and whiteness of American (Hercules Powder Company) refined linters is greater than that of Soviet products; it is 88.96 and 99.6%, resp.   Chas. Blanc

Use of the method of viscosity for evaluation of the potential wearing qualities of fiber materials. A. V. Surovova and A. I. Zakushalikov. *Colloid J.* (U. S. S. R.) **5**, 785-98(1947). The method is suitable in the textile industry for detg. the quality of cotton cloth.
John Livak

A.S.M....L.S . METALLURGICAL LITERATURE CLASSIFICATION

23

Relation between the adsorptive properties of cellulose and the viscosity of its solutions. A. P. Zakoshchikov, *Org. Chem. Ind.* (U. S. S. R.) 4, 6-7-8(1937).—A preliminary communication.   Chas. Riew

ABBVILLA METALLURGICAL LITERATURE CLASSIFICATION

18

Decomposition of hypochlorites in the presence of activators. I. The action of various activators on hypochlorite solution. A. P. Zakoshchikov, R. O. Nezhel'skaya and N. A. Pikhurova. *J. Applied Chem.* (U. S. S. R.) 10, 36-45 (1937).—The decompn. of hypochlorite is independent of the velocity of introduction of the activator in the case of the following activators: urea, ethylurea, diethylurea, NH_4OH, $EtNH_2HCl$, Et_2NH, and $MeNH_2HCl$, which are slow-acting activators. The action of $(NH_4)_2CO_3$, $(NH_4)_2C_2O_4$, $(NH_4)_2HCO_3$, NH_4NO_3, $AcONH_4$, and $(NH_4)_3PO_4$ depends on the velocity of their introduction into a hypochlorite soln., increasing with a gradual introduction. With all NH_4 salts the max. decompn. is obtained at the hypochlorite: NH_4 salt mol. ratio of 1:0.5, and a min. at that of 1:1. The action of H_2O_2 and N_2H_4HCl increases with concn. The decompn. of hypochlorite by the slow-acting activators increases with duration of the reaction. The action of NH_4OH is similar to that of its salts; that of urea and diethylurea is progressive at all concns. that of Et_2NH_2HCl, $EtNH_2HCl$, $MeNH_2HCl$ and $EtNH_2$ is very slow. The action of the $MeNH_2HCl$ type decompn. 80% of hypochlorite in 5-6 hrs., whereas the same amt. is decompd. by NH_4OH or urea in 20-30 min. and in a few sec. by the NH_4 salts. Pyridine and MeN have no effect on a hypochlorite. In all cases the formation of intermediate compds., having the properties of hypochloramines, was observed. The decompn. of hypo-

chlorite in the presence of cotton cellulose by urea does not lower the viscosity of the cellulose but protects the fiber, whereas NH_4OH and its salts are harmful to the cellulose. Six references. II. Change of the composition of the hypochlorite bath during its decomposition in the presence of activators. A. P. Zakoshchikov and N. A. Pikhurova. *Ibid.* 46-51. The decompn. yields hypochloramines, which partially remain in soln., even after the end of the decompn. During the decompn. of hypochlorite the main portion of Cl of the hypochlorite forms chloride (80%), and the total amt. of Cl in soln. decreases because some Cl is removed, during the decompn., in the form of volatile N-contg. compds. In the absence of cotton cellulose, the formation of a small amt. of chlorate was observed, probably, because of side reactions. A decrease of the alky. of a hypochlorite bath was also observed. The

see other side →

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

content of the active Cl was detd. by the Rupp method, that of chlorate by the Peters and Deutschlander method, and that of total Cl by the Volhardt method. The chloroamines were detd. by the modified Kimi method (cf. C. A. 26, 6618) as follows: A mixt. of 80 cc. of distd. water, 1 cc. of 0-6% H₂O₂, 10 cc. of distd. ether, and 10 cc. of sample was allowed to stand for 2 min. in a flask with glass stopper; 10 cc. of 10% H₂SO₄ was added, then KMnO₄ was added dropwise until an appearance of a pink coloration; 100 cc. of water, 1-2 drops of 0.01 N thiosulfate soln. and 10 cc. of 10% KI were added, and the soln. was iodometrically titrated. The amt. of the chloroamine Cl is (C × 10 × 0.003546)/1%, where C is cc. of 0.1 N thiosulfate used in titration. Two references.

A. A. Pozgoruy

Decomposition of hypochlorites in the presence of activators. III. The kinetics of decomposition of aqueous solutions of hypochlorites in the presence of ammonium hydroxide. A. P. Zaboshchikov, R. O. Neshel'skaya and N. A. Mikhanova. J. Applied Chem. (U. S. S. R.) 10, 1380-1401(in French 1401-2)(1937); cf. C. A. 31, 4456⁰, 4460⁰.—The most complete decompn. of hypochlorite proceeds at the ratio 2 mols. of hypochlorite:1 mol. of NH_4OH. The decompn. proceeds with instantaneous formation of chloroamines which, in turn, react with hypochlorite. The temp. coeff. of the reaction is 2 (1.88-1.94). The lowering of viscosity of cellulose is the same at different temps. The increase of alky. of the soln. in many cases promotes the reaction; thus in the activated bleaching both an increase and decrease of alky. of the soln. during the process may take place. The process can be called the chloro-nitrogen bleaching because the active bleaching agent is not only Cl but also N, which is present in the activators. Seven references.   A. A. P.

A new method for bleaching cotton fabrics with chlorine gas. N. A. Milisakii, A. P. Zakoshchikov, N. A. Borin and N. I. Stepanova. *Novye Metody Rabot y i-Otdely Khlopchatobumazh. Tkanei, Sbornik Rabot Khim.-Kolorist. Otdel. Nauch.-Issledovatel. Inst. Khlopchatobumazhnoi Prom. 1939*, 7–41; *Khim. Referat. Zhur. 1940*, No. 8, 108–9; cf. *C. A. 36*, 1180⁷.—The fabric is wet with water (not in NaOH soln.), treated with Cl, washed with water and alkali, boiled in NaOH soln. with rosin soap, washed, treated with NaCl soln., washed, acidified, washed and dried. Cl transforms the noncellulose substances partly into polymeric derivs. of sugars and starch, which during the subsequent treatment with alkali are easily repd. from the fabric. Wetting in water produces a strong fabric with a high capillarity, whiteness and y and permits a longer treatment with Cl, than is possible on wetting the fabric in alkali. The method was verified in the lab. and under semiproduction and production conditions. Good results were obtained.   W. R. Hess

The viscosity of copper-ammonia cellulose solutions as an index of the quality of cotton fabrics. A. V. Serovaya and A. P. Zakoshchikov. *Khlopchato-Bumazhnaya Prom.* 1939, No. 6-7, 59-63; *Khim. Referat. Zhur.* 1940, No. 5, 120 1. — Data, of the η of 1% copper-ammonia cellulose soln. is proposed for evaluating the resistance of the fabric to wear. Conditions of steeping and bleaching affect the η of copper-ammonia cellulose solns.; the temp. of bleaching has the greatest effect; next in order are concn. of active Cl in the soln. and duration of the process. The bleaching bath must be alk. (not less than 0.2-0.3 g./l. of NaOH), the soln. must contain approx. 1 g./l. of active Cl and the temp. of the bath should not be over 30°. In bleaching mercerized fabrics the alky. should be higher (0.4-0.5 g./l. of NaOH). Under these conditions of bleaching there is a considerable decrease of the η of the copper-ammonia cellulose soln. The η const. for bleached unmercerized and mercerized fabrics should be approx. 500 centipoises for 2 % copper-ammonia cellulose solns.

W.R. Kenn

Application of the method for determining the viscosity of cellulose solutions in the textile industry. A. V. Suvorova and A. P. Zakoshchikov. *Novye Metody Delaniya Krasheniya Otdelki Khlopchatobumazhnykh Tkanei, Sbornik Rabot Khim.-Kolorist. Otdeleniya Tsentral. Nauch.-Issledovatel. Inst. Khlopchatobumazhnoi Prom.* 1939, 109–40; *Khim. Referat. Zhur.* 1940, No. 8, 121; cf. C. A. 36, 2900°, 6022°.—The existence of a direct relation between the η of the soln. of cupraммonium cellulose and the wearing properties of the fabric was verified emptly, and a method for the control of the strength of cotton fabrics from this η was developed. The effects of washing and of light on fabrics in relation to the η of their solns. was studied. In detg. the relation between the strength of the individual cotton fibers of various grades and the η of their solns., it is necessary to take in the account the area of the cross section of the fiber.

W. R. Henn

CF

25

PROCESSES AND PROPERTIES INDEX

Bleaching conditions for obtaining highly viscous copper-ammonium solutions of fabrics. A. V. Sucovaya and A. P. Zakoshchikov. *Khlopchato-Bumazhnaya Prom.* 1939, No. 10, 33-5; *Khim. Referat. Zhur.* 1940, No. 6, 116; cf. C. A. 36, 3900.—Bleaching with alk. soln. of NaOCl gives stronger cotton fabrics than bleaching with neutral hypochlorite or with solns. contg. only traces of alkali. Whiteness is slightly lower than that of fabrics bleached with neutral or weakly alk. solns., but is more resistant to steaming. Addn. of Na silicate to the bleaching soln. in the ratio active Cl:NaOH:Na₂SiO₃ = 5:1:10 produces a fabric which is white, and is stronger than is required by the existing standard specifications.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

The aging of paper. A. P. Zakoshchikov. Bumazh.
Prom. 24, No. 5, 6-10; No. 6, 8-12(1949). A review
with 14 references.   Marshall Sittig

1. ALEKS.YEVA, T. B.; ASHKENAZI, YE. S.; ZAKOSHCHIKCV, A. P.; KOLODIVA, O. V.; OTBOVSKAYA, A. I.

2. USSR (600)

4. Paper Industry

7. Effect of the degree of polymerization of pulp on its characteristics in the hollander process. Bum. prom. 27, No. 7, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

AGEYEV, L.M.; KOROL'KOV, S.I.; ZAKOSHCHIKOV, A.P., redaktor; VOL-
KHOVER, R.S., tekhnicheskiy redaktor.

[Chemical and technical control and accounting in hydrolyte and
sulfite liquor production] Khimiko-tekhnicheskii kontrol' i
uchet gidroliznogo i sul'fitno-spirtovogo proizvodstva. Moskva,
Goslesbumizdat, 1953. 403 p.   (MLRA 7:8)
              (Wood pulp industry)

ZAKISHCHIKOV A. P.

Hydrolysis of pentosans from cotton hulls, sunflower hulls, corn husks, and beech sawdust. A. P. Zakishchikov, Z. M. Polyagallo, M. G. Nemenko, and G. F. Serkova, *Byull. i Leznkhim. Prom.* 8, No. 6, 9–11/1939. Cotton hulls (I), sunflower hulls (II), corn husks (III), and beech sawdust (IV) were boiled in 0.3% H_2SO_4 each for 30 min. (the ratio of the material to the soln. was 1 to 10), washed, dried, and hydrolyzed by boiling in 0.5 and 1.0% H_2SO_4 soln. for 1 hr. at atm. pressure. I, II, III, and IV, resp., contained 26.4, 24.1, 33.6, and 24.8% of easily hydrolyzable polysaccharides, of which 26.2, 39.5, 35.0, and 29.2% were pentosans, 39.2, 41.8, 13.9, and 43.8% of difficultly hydrolyzable polysaccharides, 5.13, 5.95, 5.76, and 4.6% of uronic acids, 3.69, 2.69, 3.41, and 0.87% of protein. II and IV contained about 20% of pentosans that did not hydrolyze readily. In III some hexoses dissolved together with pentosans. The yields of fermentable sugars were with 0.5% H_2SO_4, 2.21, 1.25, 4.16, and 1.33%; with 2.0% H_2SO_4, 13.85, 7.00, 15.50, and 7.44% based on pentosans; 0.5% H_2SO_4 gave 26.4, 69.2, 15.2, and 21.2%; and 2.0% H_2SO_4, 10.5, 10.8, 10.2, and 7.4% of uronic acids. Pentosans in III and I hydrolyzed rapidly, but the reaction was slower with IV and II. The relative content of uronic acids in the hydrolysis of I, after deducting the max. yield of 20.94%, has remained the same, but some volatile acids were formed on treatment with 2% H_2SO_4 ... ... it is inferred that ... ... The time of ... ... agreed with III and the loss ... II ... regard to both ... ... strength of the acid ... ... Turova

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ZAGOSKIN, B.I.; MACHINSKIY, A.P., kand. veter. nauk

The connection between a technical school and agricultural
production becomes stronger. Veterinariia 37 no.6:20-22 Je '60.
(MIRA 16:7)

1. Zamestitel' direktora po uchebnoy chasti Ryazanskogo
zootekhnichesko-veterinarnogo tekhnikuma (for Zagoskin).
(Veterinary medicine--Study and teaching)

ZAGOSKIN, B. I. and MACHINSKIY, A. P.

"The connection between a technical school and agricultural production is becoming stronger."

Veterinariya, Vol. 37, No. 6, 1960, p. 20

Zagoskin - Deputy Director for Sci. Training

ZAGOSKIN, Lavrentiy Aleksandrovich, leytenant; CHERNENKO,M.B., redaktor';
AGRANAT, G.A., redakter; BLOMKVIST, Ye.E., redaktor; VORONTSOVA,
A.N., redakter; OLEYKH, D.A., tekhnicheskiy redaktor.

[Voyages and explorations of Lieutenant Lavrentii Zagoskin in
Russian America during the period of 1842-1844] Puteshestviia i
issledovaniia Leitenanta Lavrentiia Zagoskina v russkoy Amerike
v 1842-1844 gg. Moskva, Gos.izd-vo geogr. lit-ry, 1956. 453 p.
                                                          (MIRA 9:5)

(Zagoskin, Lavrentii Alekseevich, 1807-1890) (North America--
Discovery and explorations)

ZAGOSKIN, M. P.

FA 6/29727

USSR/Engineering

Jul 48

"Heat Treatment, Casting and Forging Shops of Machine Construction Factories," M. P. Tikhonov, M. P. Zagoskin, A. S. Rudyavtsev, V. A. Dudinov, Kirov Machin Urals, 4 pp

"Prom Energet" No 7

USSR was alloted a third prize in the All-Union contest. Describes how capacity of electric furnace was increased, and construction and working

DESP - Bearing (Cont'd)

Jul 48

altered. Diesel cylinder blocks and heads cast in chill instead of molds. Mentions replacements in molding and melting techniques. Forging of caterpillar tracks in two heats of three, reducing piston clearance in and reducing air supply for face in coke

6/29727

ZAGOSKIN, V.A.

Primary zoning in gold ore veins of the middle Vitim mountain country. Geol. rud. mestorozh. 5 no.5:91-94 S-O '63.

1. Universitet druzhby narodov imeni Patrisa Lumumby.

ZAGOSKIN, V.A.

Steges in the ore formation of gold ore manifestations in the
central Vitim mountain country. Izv.vys.ucheb.zav.; geol.i
razv. 6 no.3:71-80 Mr '63.   (MIRA 16:5)

1. Universitet druzhby narodov imeni P.Lumumby.
                    (Vitim Plateau—Gold ores)

1. ZAGOSKIN, Ye. I., Eng.

2. USSR (600)

4. Electric Transformers

7. Drying transformers with zero sequence current, Elek. sta., 23, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

ZAGOSKIN, Yu.B., inzh.; SHERMAN, V.L., inzh.

Screwdriver with flexible shaft for M5-M8 screws and nuts. Stroi.
i dor. mash. 7 no.3:31-32 Mr '62.   (MIRA 15:4)
                        (Screwdrivers)

KREYNDLIN, L.N., inzh.; ZAGOSKINA, G.V., red.; KOLOMEYER, V.Z., tekhn.red.

[Machine for sawing out hinge seats] Stanok dlia vypolivaniia gnezd pod petli. Moskva, TSentr.biuro tekhn.informatsii Glav-standartoma, 1959. 12 p. (MIRA 13:1)

1. Giprostandartdom (for Kreyndlin).
(Hinges)   (Building--Tools and implements)

SHELUDCHENKO, Ye.M., red.; ZAGOSKINA, G.V., red.

[Production of particle board] Proizvodstvo drevesno-
struzhechnykh plit. Moskva, 1964. 20 p. (MIRA 18:5)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut
informatsii i teknniko-ekonomicheskikh issledovaniy po
lesnoy, tsellyulozno-bumazhnoy, derevoobrabatyvayushchey
promyshlennosti i lesnomu khozyaystvu.

OTLEV, I.A., kand. tekhn. nauk; ZAGOSKINA, G.V., red.

[Pressing particle board in multistory hydraulic presses]
Pressovanie struzhechnykh plit v mnogoetazhnykh gidravli-
cheskikh pressakh. Moskva, TSentr. nauchno-issl. in-t
informatsii i tekhniko-ekon. issledovanii po lesnoi, tsel-
liulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i
lesnomu khoz., 1964. 25 p.   (MIRA 18:5)

1. Bryanskiy tekhnologicheskiy institut (for Otlev).

TANSKIY, V.V., inzh.; ZAGOSKINA, O.V., red.; SHENDAREVA, L.V.,
tekhn.red.

[Making particle board using the pneumatic fractionation
of shavings] Proizvodstvo drevesno-struzhechnykh plit s
pnevmaticheskim fraktsionirovaniem struzhek. Moskva,
TSentr.biuro tekhn.informatsii Glavstandartdoma, 1959.
15 p.   (MIRA 13:1)

(Wood, Compressed)

KREINDLIN, L.N.; DROZDOV, I.Ya.; ZAGOSKINA, G.V., nauchn.red.;
    SHKLIAREVA,L.V., tekhn.red.
[Using fiberboard in building] Primenenie drevesno-
voloknistykh plit v stroitel'stve. Moskva, TSentr. in-t
tekhn. informatsii i ekonom. issl. po lesnoi, bumazhnoi i
derevoobrabatyvaiushchei promyshl., 1963. 67 p.
                                          (MIRA 16:10)

        (Fiberboard)

EPSHTEYN, T.G.; ZAGOSKINA, G.V., red.

[Automatic lines for the veneering of panel-type parts
and particle board] Avtomaticheskie linii dlia fanero-
vaniia shchitovykh detalei i struzheohnykh plit. Mo-
skva, TSentr. nauchno-iss . in-t informatsii i tekhniko-
ekon. issl. po lesnoi, tselliulozno-bumazhnoi, derevo-
obrabatyvaiushchei promyshl. i lesnomu khoziaistvu, 1963.
39 p.   (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy
institut derevoobrabatyvayushchego mashinostroyeniya (for
Epshteyn).

BAKHTEYAROV, V.D.; ZAGOSKINA, G.V., red.; SHENDAREVA, L.V.,
        tekhn. red.

[Ways of increasing the yield of wood products and the
efficient utilization of wastes] Puti povysheniia vykhoda
produktsii iz drevesiny i ratsional'nogo ispol'zovaniia ot-
khodov. Moskva, TSentr. in-t tekhn. informatsii i ekon.
issl. po lesnoi, bumazhnoi i derevoobrabatyvaiushchei pro-
myshl., 1962. 71 p.   (MIRA 16:6)
        (Wood-using industries) (Wood waste)

SAKHAROV, M.D.; ZAGOSKINA, G.V., red.

[Present-day elements of window blocks for housing construction] Sovremennye konstruktsii okonnykh blokov dlia zhilishchnogo stroitel'stva. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tselliulozno-bumazhnoi, derevoobrabaty- vaiushchei promyshl. i lesnomu khoz., 1963. 47 p.
(MIRA 17:9)

ZAGOSKINA, G.V., red.; SHLUDCHENKO, Ye.M., red.; POSPELOVA,
        G.L., red.

        [Production of particle board; based on the materials of
        the seminars] Proizvodstvo drevesno-struzhechnykh plit; po
        materialam seminarov. Moskva, TSentr.nauchno-issl. in-t
        informatsii i tekhniko-ekon. issledovanii po lesnoi, tsel-
        liulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i
        lesnomu khoz., 1964. 105 p.   (MIRA 18:8)

        1. Vsesoyuznyy seminar rabotnikov predpriyatiy drevesno-
        struzhechnykh plit, osnashchennykh otechestvennym oboru-
        dovaniyem. 1964.

KOZENKO, A.B.; ZONTOV, A.K.; KOPTSOV, V.S.; FROLOV, A.V., red.;
ZAGOSKINA, G.V., red.; SHENDAREVA, L.V., tekhn. red.

[Automated continuous production line for the manufacture of
fiberboards]Avtomatizirovannaia potochnaia liniia dlia pro-
izvodstva fibrolitovykh plit. Moskva, TSentr. in-t tekhn.
informatsii i ekon. issl. po lesnoi, bumazhnoi i derevoobra-
batyvaiushchei promyshl., 1962. 68 p.   (MIRA 16:4)
     (Fiberboard) (Assembly-line methods)

ARSEN'YEV, K.K., kand. tokhn. nauk; MOROZOV, N.A., kand. tokhn. nauk; SHCHEDRO, D.A., inzh.; ZAGOSKINA, G.V., red.

[Pressing of furniture parts from ground wood] Pressovanie mebel'nykh detalei iz izmel'chennoi drevesiny. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tsellinlozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1964. 20 p.

(MIRA 17:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.

ZAGOSKINA, G. V.

KRASOVSKIY, S.P., redaktor; ZAGOSKINA, O.V., redaktor; SHENDAREVA, L.V.,
tekhnicheskiy redaktor

[Manufacture of wood-shaving boards] Proizvodstvo drevesno-struzhech-
nykh plit. Moskva, TSentral'noe biuro tekhn.informatsii, 1957. 42 p.
(MLRA 10:8)

1. Russia (1923-   U.S.S.R.) Ministerstvo bumazhnoy i derevo-
obrabatyvayushchey promyshlennosti
        (Paperboard)

KOBAL'CHUK, L.M., kand. tekhn. nauk; BASKAKIN, Ye.N.; BELOZEROVA,
A.S.; ZAGOSKINA, G.V., nauchn. red.

[Mechanized dovetail gluing of wood] Mekhanizirovannoe
skleivanie drevesiny na zubchatyi ship. Moskva, TSentr.
nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii
po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei
promyshl. i lesnomu khoziaistvu, 1963. 43 p.
(MIRA 17:5)

DADEYEV, V.; ZAGOSKINA, V.

In the struggle for high rank. Prof.-tekh.obr. 18 no..6:27-28
Jo '61.   (MIRA 14:7)

1. Direktor Spetsial'nogo professional'no-tekhnicheskogo uchilishcha
No.11 (g. Shuya, Ivanovskoy oblasti) (for Dadeyev). 2. Pomoshchnik
direktora po kul'turnovospitatel'noy rabote Spetsial'nogo profes-
sional'no-tekhnicheskogo uchilishcha No.11 (g. Shuya, Ivanovskoy
oblasti) (for Zagoskina).
                    (Ivanovo Province--Textile workers)
            (Ivanovo Province--Evening and continuation schools)

ZAGOSKINA, Ye.D.; SIKORSKIY, K.P.; VELICHKOVSKIY, Ye.I., red.;
KREKSHINA, L., red. izd-va; YAKOVLEVA, Ye., tekhn. red.

[Special aspects of teaching mathematics in grades 5-7 ac-
cording to the new program; methodological instructions for
Moscow teachers] Osobennosti prepodavaniia matematiki v
V-VII klassakh po novoi programme; metodicheskie ukazaniia
dlia uchitelei g. Moskvy. Moskva, Mosk.rabochii, 1962. 84 p.
(MIRA 15:7)

1. Moscow. Gorodskoy institut usovershenstvovaniya uchiteley.
(Mathematics—Study and teaching)

ZAGOSKINA, Ye.D.; SIKORSKIY, K.P.; ZEVINA, A.N., otv. red.; VORONTSOV, M.I., red.

[Recommended mathematics curriculum for the second half of the 1962-1963 school-year (grads 5 to 11)] Primernyi plan raboty po matematike vo vtorom polugodii 1962-1963 uchebnogo goda (V-XI klassy). Moskva, 1963. 83 p.   (MIRA 16:8)

1. Moscow. Gorodskoy institut usovershenstvovaniya uchiteley.
2. Direktor Moskovskogo gorodskogo instituta usovershenstvovaniya uchiteley (for Zevina).
                  (Mathematics--Study and teaching)

ZAGOSKINA, Ye.D.; SIKORSKIY, K.P. (Moskva)

Methodical hints pertaining to the teaching of mathematics in the 5th and 6th grades. Mat. v shkole no. 6:45-53 N-D '60.
(MIRA 14:2)

(Mathematics—Study and teaching)

GRISHANOV, A.,inzh.; ZAGOVALKO, M.

Excellent track maintenance on our division. Zhel.dor.transp.
36 no.6:65-69 Je '55.   (MIRA 12:4)

1. Nachal'nik Kamyshlovskoy distantsii puti (for Grishanov).
2. Kamyshlovskaya distantsiya puti (for Zagovalko).
        (Sverdlovsk Province--Railroads--Track)

ZAGOVEL'YEV, A.

Toward new success! Prom.koop. 14 no.2:1-3 F '60.
(MIRA 13:5)

1. Predsedatel' pravleniya Rospromsoveta.
(Cooperative societies)

ZAGOVEL'YEV, A.

Our important tasks. Prom.koop. 13 no.1:1-3 Ja '59.

(MIRA 12:2)

1. Predsedatel' pravleniya Rospromsoveta.
(Cooperative societies)

S/076/63/037/003/004/020
B101/B215

AUTHORS: Yermakov, V. I., Smirnov, N. I., and Zagorets, N. A. (Moscow)

TITLE: Study of solutions by high-frequency methods. VI.
              Dispersion effects in electrolyte solutions in a wide
              frequency range of the electromagnetic field

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 3, 1963, 544-552

TEXT: A non-resonance circuit (Fig. 4) is suggested for measuring the
relaxation effects in electrolytes. Measurements were conducted by using

two equations $v_3 = Jkt_{br}/I_{sol}$ or $I_{sol} = Jk\ddot{U}_{br}/\ddot{U}_3$, where $k = l_2k_1/\kappa.k_{12}$,

... being related to the resistance

box of the bridge and $_{sol}$ to the electrolyte solution. Measurements with
frequencies up to 200 Mc/sec yielded a stepwise course of the curve
electroconductivity versus concentration for KCl, $MgCl_2$ and $AlCl_3$. This
is explained by steric hindrance effects on reformation of the hydrate
complexes with a certain lifetime. Shortlived hydrates are found at
Card 1/2

Study of solutions of ...

S/076/63/037/0xm/004/020
B/0/10

frequencies above 10^8 cps, whereas below 1 Mc/sec, only the most stable hydrate shells are observed. There are 8 figures.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: November 5, 1961

Fig. 4. Principle of a z-meter circuit with high-frequency compensation; legend: $\mathcal{A}$ = cell; Γ = generator.
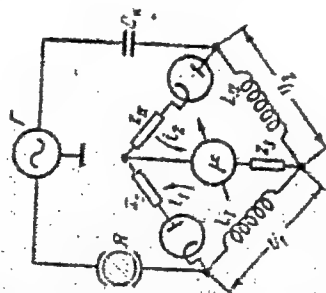
Card 2/2

L 11393-63   EWT(m)/BDS   AFFTC/ASD

S/120/63/000/002/037/041   5d.

AUTHOR: Chukichev, M. V. and Zagorets, P. A.

TITLE: Using silicon alpha-particle counters for measurements in solutions

PERIODICAL: Pribory i tekhnika eksperimenta, March-April 1963, v. 8 no 2

TEXT: The article describes the recently developed silicon alpha-particle detectors using a surface barrier and a p-n junction. These counters may be used to determine the concentration of alpha active substances in solutions by measuring the intensity of alpha particles leaving the surface of such solutions. Test results are given and show that counter noise is 5 imp/mi, and that the instrument is capable of measuring a concentration of the order of $C_{U233} = 1.5 \cdot 10^{-6}$ g/cm^3. There are two figures.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Chemical Technology Institute)

SUBMITTED: May 28, 1962

Card 1/1   3a/CA

CHUKICHEV, M.V., ZAGORETS, P.A.

Use of silicon alpha-counters for measurements in solutions. Prib. i tekh. eksp. 8 no.2:172-173 Mr-Ap '63.   (MIRA 16:4)

1. Moskovskiy khimiko-tekhnologicheskiy institut.
                    (Nuclear counters)

AUTHOR: Zagorets, P. A.; Yermakov, V. I.; Oruman, A. P.

... echo apparatus

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 6, 1963, 1413-1415

TOPIC TAGS: high-frequency method, nuclear magnetic resonance method, spin echo apparatus, spin-lattice relaxation time, $FeCl_3$ - NH_4F

ABSTRACT: A method has been proposed for the relative determination of the spin-lattice relaxation time (T_1) by means of spin echo technique. The possibility of using this method in studies of complexation in solutions has been illustrated on the example of complex formation in the system $FeCl_3$ & NH_4F. Orig. art. has: 2 figures.

ASSOCIATION: Khimiko-tekhnologicheskiy insititut im. D. I. Mendeleyeva (Chemical Engineering Institute)

SUBMITTED: 00   DATE ACQ: 16 Jul 63   ENCL: 00
SUB CODE: 00   NO REF SOV: 005   OTHER: 002
Card 1/1

ZAGOREVSKIY, V.; DUDYKINA, N. V.; Prinimala uchastiye MINLIKEYEVA, G. I.

Ring expansion in the reduction of oximes. Zhur. ob. khim. 33 no.1:322-323 '63.   (MIRA 16:1)

1. Institut farmakologii i khimioterapii AMN SSSR.

(Oximes)   (Reduction, Chemical)

ZAGOREVSKIY, V.A.; ZYKOV, D.A.

Series of pyran, its analogs, and related compounds. Part 2:
Dialkylaminomethylation of esculetin and 4-methylesculetin.
Zhur.ob.khim. 33 no.3:793-797 Mr '63.   (MIRA 16:3)

1. Institut farmakologii i khimioterapii AMN SSSR.
   (Pyran)   (Esculetin)   (Coumarin)

LEBEDEVA, L.N., assistent; ZAGOVORA, A.V., kand.biolog.nauk; RYAZANTSEVA, N.N.;
    POGOREL'SKIY, L.G.; GOLUBINTSEVA, A.P., kand.sel'skokhoz.nauk
    (Novosibirsk); GADZHIYEV, G.E.

Brief reports. Zashch. rast. ot vred. i bol. 6 no.7:56-57 Jl
'61.   (MIRA 16:5)

1. Kafedra plodovodstva i zashchity rasteniy Novosibirskogo sel'skokho-
zyaystvennogo instituta (for Lebedeva). 2. Ukrainskiy institut rasteni-
yevodstva, selektsii i genetiki, Khar'kov (for Zagovora, Ryazantseva).
3. Nachal'nik karantinnoy inspektsii Dagestanskoy ASSR (for Pogorel'-
skiy). 4. Zaveduyushchiy mezhrayonnoy biolaboratoriyey, Kubinskiy
rayon (for Gadzhiyev).
                    (Plants, Protection of)

ZAGOVORA, A.V.

Some characteristics of the reproduction of the Hessian fly in the Ukraine. Vop. ekol. 7:61-62 '62. (MIRA 16:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut rasteniyevodstva, selektsii i genetiki, Khar'kov.
(Ukraine—Hessian flies)

P

COUNTRY : USSR
CATEGORY : GENERAL&SPEC.ZOOLOGY.INSECTS
Insect and Mite Pests.
ABS. JOUR.: Ref. Zhur.-Biologiya, No.4 , 1959, No. 16289

AUTHOR : Zagovora, A.V.
INST. :Ukrainian Soi.Res.Inst. of Plant Cultivation,*
TITLE : Number of Hessian Flies with Different Methods
of Soil Treatment.

ORIG. PUB.: Byul. Ukr. n.-i. in-ta rasteniyevodstva,
selekts. i genet., 1958, No.2, 127-128

ABSTRACT : Experiments were set up in 1955 in Khhar'kov-
skaya Oblast on a field under winter wheat
which had suffered radically from Hessian
flies: 65.4% of the plants were damaged, and
there averaged 460 pseudo-cocoons on 1 m .
the percentage of flies which flew out with
soil disking on 8 - 9 cm was 89.9 as compared
with the control, with unplowed tillage on
35 - 40 cm -- 82.7%, with plowed tillage with
pre-plowing on 24 - 25 cm -- 19.5%. Deep

CARD: 1/2 *Selection,and Genetics

COUNTRY   : USSR   P

CATEGORY   : GENERAL SPEC.ZOOLOGY.INSECTS

ABS. JOUR : Insect and Mite Pests
             Ref Zhur -biologiya, No. 4, 1959, No. 16284

AUTHOR   : Zagorova, A.V.
INST.   : Ukrainian Sci.Res.Inst. of Plant Cultivation,*
TITLE   : Increased Effectiveness in the Struggle with the
             Corn Borer.

ORIG. PUB.: Byul. Ukr. n.-i. in-ta rasteniyevodstva,
             selekts., i genet., 1958, No.2, 129-131

ABSTRACT   : According to a 3-year follow-up on corn stalks
             20, 30, and 50 cm high the percentage of cat-
             erpillars found in Bogodukhovsky Rayon was cor-
             respondingly 37.4, 48.9, and 67.1, and in
             Khar'kovsky Rayon it was 24.4, 34.5, and 56.2.
             After reaping of the corn combine for the grain
             on an average for 2 years there remained a
             stubble 20, 21 - 50, and 31 0 50 cm high and
             respectively 17, 34, and 49%. For increased
             effectiveness in the struggle with the borer

CARD: 1/2   *Selection and Genetics

COUNTRY :
CATEGORY : GENERAL&SPEC.ZOOLOGY.INSECTS

ABS. JOUR.:   Ref Zhur -Biologiya, No. 4, 1959, No. 14624

Author   :
INST.   :
TITLE   :

ORIG. PUB.:

ABSTRACT :a series of projects is necessary to eliminate
           it, and the remnants of hemp, millet, and corn
           stalks must be plowed in. -- A.P. Adrianov

CARD :   2/2

USSR / General and Special Zoology. Insects.   P

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16420

Author : Zagovora A.V.
Inst   : Not given
Title   : Injurious Eurygaster on Maize.
          (Vrednaya cherepashka na kukuruze).

Orig Pub: Zashchita rast.ot vredit. i boleznei, 1957, No 3,
          49-50

Abstract: No abstract.

Card 1/1

9(3)
AUTHORS: Zagovorskiy, Ye.N., Engineer, and Rumyantsev, Yu.G., Engineer

SOV/143-58-11-3/16

TITLE: The Determination of Losses in Enclosed Buses and Their Thermal Calculation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika, 1958, Nr 11, pp 21-30 (USSR)

ABSTRACT: Power generators terminal buses have a design which is different from the open buses presently used. Terminal buses of high-capacity generators must meet the following requirements: a) extraordinary high reliability; b) reduction of losses in surrounding steel constructions; c) limiting electrodynamic forces on buses; d) high economic indexes. The simultaneous satisfaction of all these requirements is made difficult, since the known bus designs contradict economic requirements. At electric power plants where the generators are directly connected to the transformers without intermediate circuit breakers, buses are used having an envelope made of a material different from

Card 1/5

The Determination of Losses in Enclosed Buses and Their Thermal Calculation

that used for the buses. The author explains the possible versions in the design of such buses. There are buses with aluminum envelopes, with non-magnetic steel envelopes and buses with envelopes made of a non-conductive material (asbestos tubes, etc). Several cooling systems may be used for enclosed terminal buses: 1) Enclosed buses where the heat exchange is achieved by natural convection and radiation, are the most reliable, but they require increased spending for non-ferrous metals. 2) Enclosed buses with forced air-cooling require special protective measures for spending of arcs in case of short circuits and reserve ventilation equipment. Since the air is circulating between the bus and the envelope a dirt precipitation will occur in open cycle cooling systems, while closed cycle systems require an additional air cooler. 3) Liquid cooled bus terminals, using circulating oil or another dielectric cooling agent. The envelope may be reduced in this case, by approximately 30%, resulting

Card 2/5